

Those of you who are starting with us with this volume may be interested in a very short history. The Bally Arcade was first advertised by the Chicago mail order house of JS&A in such magazines as Popular Science, Scientific American, the airline freebies and a couple of others in Sept/Oct. of 1977. In the two page ad, delivery was promised in four weeks and the expansion unit was indicated to be available in 6 weeks, so that a complete and highly sophisticated computer would be shortly available at a \$600 price range. The Tiny BASIC showed up in October 1978, and I started this subscription newsletter in Nov. We have yet to see the expansion unit (Add On)(Level III), but in the last year a number of doors have been unlocked in the Tiny BASIC and subscribers, as a group, are the only ones able to expand their programs and enhance their operations. This Newsletter is the only established source of free programs, and provides a place for those wishing to market their outputs.

PRINTER OUTPUT. I GUESS YOU NOTE THE UNUSUAL TYPE IN THIS PARAGRAPH; THIS IS BEING TYPED VIA MY NEW Comprint 912S PRINTER UNDER DIRECT CONTROL OF THE BALLY. I HOPE TO PRINT MORE OF THE ARCADIAN THIS WAY IN THE FUTURE - THIS IS A SAMPLE TO WHET YOUR APPETITE. THIS MACHINE WAS ADVERTISED ON THE INSIDE FRONT COVER OF THE JULY KILOBAUD. COST IS \$699 RETAIL, BUT I HAVE A SOURCE FOR IT AT \$525 FOB SAN JOSE (PLUS CAL TAX IF APPLICABLE). FULL DETAILS NEXT TIME.

SAUCER BATTLE

BY JOHN HURST

9/79

10 - 100	Initialize and Input mode of play. Draw stars and print scoring.
200 - 290	Draw saucers and allow control by hand controls. Two player game.
300 - 495	One player against computer. Draw saucers, left for player, right for computer. Computer random positioning and movement. Set ups for computer or TR(1) firing.
500 - 530	Set ups for TR(1) or TR(2) firing in two player mode.
540	Back to two player program if neither saucer fires LASER.
600 - 680	Fire left saucer's LASER, if a hit goto blowup routine, if not go back to one or two player routine, whichever is in use.
700 - 780	Same as 600, but for right saucer.
800 - 860	Blowup right saucer, back to main program in use. Upgrade score.
900 - 960	Blowup left saucer, back to main program in use. Upgrade score.
1000 - 1010	Print GAME OVER. If GO key is pressed, goto line 10 to play again.

This game can be played by two or one, (against the computer). Difficulty of hitting target can be selected, $\theta\rightarrow 1$, θ being the hardest. Amount of LASER blasts and Max Score to win can be selected. If one player option is selected, accuracy of the computer can be set, $\theta\rightarrow 2$, θ being the most accurate. If the computer fires when accuracy is θ , it will not miss. If both triggers are pulled at the same time, neither will fire, in two player option. If remaining LASER blasts are five or less, an open hole will appear in the center of the saucer that is low on charge. When all charge for LASER is depleted for one saucer, he can no longer fire. If both saucers are depleted of charge, or Max Score is reached by one saucer, game is over. To play again just press GO key.

The memory use of this game is very close to the max available to the Bally, so care should be used when entering this program. Use no spaces unless necessary, the listing may have extra spaces due to my typing. If you don't need them, don't use them. Also deleting lines 1 - 5 can save some memory if needed. Good Luck.

John R. Hurst

PROGRAM NAME SAUCER BATTLE

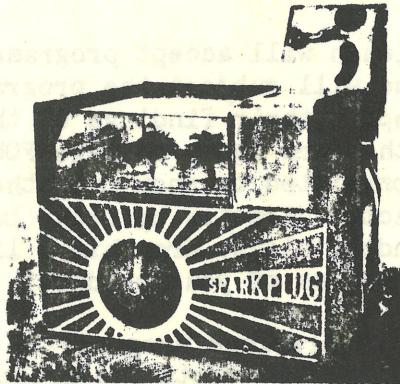
Line #	Statement(s)	Line #	Statement(s)	Line #	Statement(s)
1	#SAUCER BATTLE	370	IF F>=U-5 BOX-75,K,2,2,3	720	R(23)=255; R(21)=255
2	BY JOHN HURST	380	IF 6>E U-5 BOX 75,D,2,2,3	730	LINE 73,D,4; LINE-75,D,3; L1
3	CLEAR; BC=0; EC=126; D(0)=6;	390	BOX-75,K,4,4,3; BOX 75,D,4,	NE φ,φ,4; R(21)=φ; φ(23)=φ;	
4	R(1)=φ; R(2)=126; D(3)=φ;	400	IF F=U IF 6=U GOTO 1000	IF L=2 IF N=1 GOTO 77Φ	
5	INPUT "DIFFICULTY:φ+12"; N.	410	IF F=U GOTO 440	IF D>K-2 IF D<K+2 GOSUB 3900	
6	PRINT "HOW MANY	420	IF TR(1) GOTO 600	750 BOX 75,D,4,4,2; BOX-75,K,A,	
7	INPUT "LASER BLASTS: E"; U	430	IF 6=U GOTO 310	4,2; IF L=1 GOTO 300	
8	INPUT "MAX SCORE: Z"; H	440	IF M=1 GOTO 480	770 I.F D>K-3 IF D<K+3 GOSUB 8900	
9	INPUT "1 OR 2 PLAYERS: F"; L;	450	IF M=2 GOTO 49Φ	780 GOTO 75Φ	
10	IF L=1 INPUT "ACCURACY: EF"	460	IF K>D-1 IF K<D+1 GOTO 140	FOR E=1 TO 10; k(9)=37; g	
11	COMPUTER:φ+2; ?; M	470	GOTO 310	8(2)=90	
12	CLEAR; FOR A=1 TO 5; φ; B=RND	480	IF K>D-3 IF K<D+3 GOTO 740	810 FOR D=φ TO 1	
13	(13φ)-65; C=RND(BB)-44	490	IF K>D-6 IF K<D+6 GOTO 740	820 BOX 75+RND(4)-2,D+RND(4)-2	
14	90 BOX B,C,1,1; NEXT A; C=X;	495	GOTO 310	9,2,3; NEXT P	
15	-17; CY=4Φ; PRINT "+SCORE→"	500	IF F=U GOTO 530	930 MU=0; :NEXT E; R(2)=126; j	
16	X=-77; CY=32; PRINT "#16,J;"	510	IF TR(1) GOTO 600	δ(9)=50	
17	#B,I; J=2; GOTO 34Φ	520	IF 6=U GOTO 200	J=J+1; CX=-77; CY=32; PRINT	
18	K=KN(1)÷4-6; D=KN(2)÷4-6	530	IF TR(2) GOTO 740	#1Φ, J	
19	210 BOX-75,K,4,4,3; BOX 75,D,4,	540	GOTO 240	850 IF J=H GOTO 190Φ	
20	4,3	600	BOX-75,K,4,4,1; BOX 75,D,4,	860 BOX 75,D,10,10,2; RETURN	
21	220 IF F>=U-5 BOX-75,K,2,2,3	610	A,1	900 FOR E=1 TO 10; k(9)=4; FC=90	
22	230 IF 6>=U-5 BOX 75,D,2,2,3	620	F=F+1; LINE-73,K,4; LINE	910 FOR P=φ TO 1	
23	240 IF F>=U-5 BOX-75,K,2,2,3	630	75,K,9,3	920 BOX-75+RND(4)-2,K+RND(4)	
24	250 IF 6>=U-5 BOX 75,D,2,2,3	640	R(16)=255; R(21)=255; R(23)=44	-2,2,2; NEXT P	
25	260 BOX-75,K,4,4,3; BOX 75,D,4,	650	LINE-73,D,K,4; LINE75,K,3; j	930 MU=""; :NEXT E; F,C=126; δ(9)	
26	270 IF F=U IF 6=U GOTO 1000	660	φ,φ,4; R(16)=φ; R(21)=φ;	=50	
27	280 IF (TR(1))-(TR(2)) GOTO 50Φ	670	R(23)=φ; IF N=1 GOTO 67Φ	940 J=J+1; CX=-17; CY=32; PRINT J	
28	290 GOTO 240	680	LINE-73,D,K,4; LINE75,K,3; j	950 IF J=H GOTO 200Φ	
29	300 D=RND(76)-38	690	φ,φ,4; R(16)=φ; R(21)=φ;	960 BOX-75,D,10,10,2; RETURN	
30	K=KN(1)÷4-6; D=D+RND(10)-5	700	R(23)=φ; IF L=1 GOTO 30Φ	1000 CX=-23; CY=4; PRINT "GAME	
31	320 IF D>25 D=25	710	4,2; IF L=1 GOTO 20Φ	OVER	
32	330 IF D<-38 D=-38	720	IF K>D-3 IF K<D+3 GOSUB 8900	R=KP; J,F, R-13 GOTO 10	
33	340 BOX-75,K,4,4,3; BOX 75,D,4,	730	600 GOTO 240		
34	4,3	740	IF K>D-2 IF K<D+2 GOSUB 8900		
35	350 IF F>=U-5 BOX-75,K,2,2,3	750	680 GOTO 65Φ		
36	360 IF F>=U-5 BOX 75,D,2,2,3	760	BOX 75,D,4,4,1; BOX-75,K,		
		770	4,4,1		
		780	6-G+1; LINE73,D,4; LINE -75,		
		790	D,3		

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ANOTHER PRINTER has been successfully connected to the Bally, writes John Hurst. He has a Victor Model 1250 that uses 3 3/4" wide adding machine tape, with 34 characters per line. John sent some sample material, but the print was blue and wouldn't reproduce. He also needs the little converter that was shown on p.47 of Vol. 1.

NOSTALGIA for those who can recall some of the older Bally gaming machines. This antique was included in an auction held at Disneyland in late November.



Bally Sparkplug Paying Horse Race Game.

DECIMAL DIVISION is a version by Laurence Gallant that will give you up to 32,676 decimal places (the variable Z).

1. DECIMAL DIVISION
5. BY L. GALLANT
10 INPUT X,Y,Z
20 A=X+Y
30 PRINT #1,A,#1;".";
40 FOR B=1 TO Z
50 E=(RM*10)/Y
60 PRINT E,
70 NEXT B

PROGRAM NAME LOGO	
Line #	Statement(s)
10	CLEAR
20	&(9)=37
30	BC=250;FC=7
40	FOR A=1 TO 150
50	H=RND(160)-80;V=RND(80)-44
60	BOX H,V,1,1,RND(2)
70	NEXT A
80	&(9)=85;&(1)=250
90	&(2)=100;&(11)=250
100	CX=-44;CY=0
110	PRINT "ARCADIAN
120	LINE 0,0,4
130	FOR Q=0 TO 35 STEP 2
140	LINE 75,Q,9;LINE 0,Q,4
150	LINE 75,-Q,3;LINE 0,-Q,4
160	NEXT Q
170	L=7;FOR Z=48 TO 51
180	BOX -Z,0,1,L,1
190	L=L-2
200	NEXT Z
210	BOX -22,0,50,9,3
220	FOR Q=0 TO 35
230	LINE 75,Q,3;LINE 0,Q,4
240	LINE 75,-Q,3;LINE 0,-Q,4
250	NEXT Q
260	GOTO 220

LOGO shown at the head of page ONE is based on an idea by Guy McLimore, and embellished by myself. If you'd like to see it in action (literally) and in living color, the program is included.

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PROGRAM REVIEWS are being covered in detail in this first issue of Vol.2 in order to act as a reference base for future material. Dick Houser 635 Los Alamos Ave., Livermore, CA 94550 is heading up a team consisting of

Steve Wilson 18015 Sally Ave. Cleveland OH 44135
Don Daniels 3 Apex Road Melville NY 11746
Bill Rueger 336 Beach 38th St Far Rockaway NY 11691
Phil Shafer 3708 Big Horn Trail Plano TX 75075

These gentlemen will accept programs which are offered FOR SALE by various vendors, and will subject the programs to hands-on operation, review these and then report their findings on the quality of subject matter, documentation, etc., per the form shown on page FOUR. The reviews that appear in the ARCADIAN will be abbreviated to show only the rating answers. Program vendors are being contacted directly by Dick, based on ads run previously. If you are a 'new' vendor, please drop him a line if you are interested in having impartial reviews of your product.

CORRECTIONS of previous programs:

Dick Nitto, who wrote the article "Have a Ball with Bally" in the latest KILOBAUD writes about dropouts in two of the lines in the program he had included there. They should read

270 GOSUB 440; IF G=1 GOTO 330
280 IF S=0 R=R+1; GOTO 330

He also writes that an easier version is possible if you substitute

260 IF X<3 IF X>-3 IF Y<3 IF Y>-3 GOTO 300
440 IF X<4 IF X>-4 IF Y<4 IF Y>-4 A=520; G=1; GOTO 460

MICROTREK needs to be corrected to

200 CLEAR; C = E-S; IF C ≠ C = -C
220 Q=0; IF C 2 IF G 2 Q=1

and Bill Templeton suggests the following color commands for enhancement. Insert them in each line just before the RETURN command -

700 FC = 0;
710 FC = 90;
720 FC = 172;
730 FC = 133;

SPACE WAR as printed on p.79 had two points needing work, writes John Johnson. The asterisk (*) in lines 300 and 500 should be changed to the x for multiplication. In line 820, the Y-5 should be T-5.

RESEQUENCING apparently does not work on all machines. We noted on p. 25 that there were at least two variations of Bally software. We'll work on this to see what changes might have to be made.

CHECKER as modified on p.90 has a typo of mine, in that the @() in line 260 should be @().

TUTORIAL (3) on p.41 is called a real space saving help by John Collins, who suggests adding an equals sign to line 9030 so that it reads

9030 PRINT #1,"=",%(20076 + (Zx2))

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REVIEW FORM

This form is used by the reviewer in doing his job, showing what things he will be looking for and the gradations possible. The very bottom of the form is what will appear in the ARCADIAN. You can refer back to this page to refresh your memory on the ratings.

Source Code ----- Cassette Code ----- Program Code ----- BPRF4

BALLY PROGRAM REVIEW

Date:-----

Name of Program:----- Cassette Name:-----

Description:-----

Source:-----

Reviewed by:-----

Price:-----

Age:-----

Circle score for each item 0 1 2 3 4 5 6 7 8 9 on scoring line.

PROGRAM DOCUMENTATION (PD)

No Instructions 0 1 2 3 4 5 6 7 8 9 Very Clear Description
Listings, Flowchart, Instructions

PROGRAM POLISH (PP)

Sloppy, Amateurish 0 1 2 3 4 5 6 7 8 9 Professional

USE OF SPECIAL FEATURES (USF)

Minimal Used 0 1 2 3 4 5 6 7 8 9 Great Use of Features
Graphics, Sound, Handles

LEVEL OF CHALLENGE (LC)

Not Challenging 0 1 2 3 4 5 6 7 8 9 Very Challenging

ORIGINALITY AND CREATIVITY (OC)

Adapted, Same Old Stuff 0 1 2 3 4 5 6 7 8 9 Totally Brilliant and Unique

LEVEL OF INTEREST (LI)

Boring 0 1 2 3 4 5 6 7 8 9 Fascinating

EDUCATIONAL VALUE (EV)

Little 0 1 2 3 4 5 6 7 8 9 Really Learn Facts
and Skills

EASE OF USE (EU)

Awkward, Inconvenient 0 1 2 3 4 5 6 7 8 9 Easy, Quick, Convenient

OVERALL VALUE (OV)

Almost Worthless 0 1 2 3 4 5 6 7 8 9 Everyone Should Buy

.....
Name of Program:----- Cassette Name:-----

Description:-----

Source:----- Price:-----

Reviewed By:----- Age:-----

Ratings : PD=-- PP=-- USF=-- LC=-- OC=-- LI=-- EV=-- EU=-- OV=-- TP=-- SZ=--

Time to Play ----- For Ages ----- # of Players -----

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"ARCADE DICE" by KLAUS GRISIMAYER

```

1. ARCADE DICE
2. BY K.F.G.
3. RETURN
5CLEAR;INT=0;PC=84;BC=24
1 PRINT;PRITE** * * * ARCADE DICE * *
2 PRINT;PRINT" 1 ELECTRONIC DICE
3 PRINT;PRINT" 2 ELECTRONIC CRAPS GAME
4 PRINT;PRINT;PRINT" MAKE SELECTION
5 IF#(23)=8 CLEAR;GOTO 1
6 IF#(22)=8 CLEAR;K=1;T=-1;GOTO15
7 GOTO5
1 GOSUB78;INPUT# OF PLAYERS;P;IF P>4 P=4
11 IF#(1 X-1;GOSUB 89;GOTO11
12 GOTO76
14 CX=75;CT=4;RETURN
15 NNT=1
16 BOX 0,36,8,9,2
17 BOX 0,46,16,8,2
18 MU=((K#(1+L28))÷28)+1.
19 IF#(22)=16 GOTO 5
20 GOSUB14;PRINT RET;S" #3,M,
21 IF TR(1)=1 GOTO 18
22 GOSUB 89
23 GOSUB 59
24 S=L+R
25 IF S=7 GOSUB 51;GOTO69
26 IF S=11 GOSUB 51;GOTO69
27 IF S=2 GOSUB 52;GOTO49
28 IF S=3 GOSUB 52;GOTO49
29 IF S=12 GOSUB 52;GOTO49
30 GOSUB59;PRINT"ROLL AGAIN"
31 GOSUB89
32 GOSUB59
33 A=L+R
34 IF A=3 GOSUB 53;GOTO69
35 IF A=7 GOSUB 54;GOTO49
36 GOTO 31
40 GOSUB 14;PRINT "# # YOU LOSE # # # "
41 NNT=8
42 MU=49;NU=51;MU=53;NU=98;MU=49;NU=48;NU=48;
    MU=98;NU=49;NU=48;NU=48;NU=48;NU=48
43 NNT=4

```

O-X

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```
900;GOSUB960;RETURN  
910;GOSUB970;RETURN  
920;GOSUB960;GOSUB970;RETURN  
930;GOSUB970;GOSUB980;RETURN  
940;GOSUB960;GOSUB970;GOSUB980;RETURN  
950;GOSUB970;GOSUB980;GOSUB990;RETURN  
960;BOX X,6,6,1;RETURN  
970;BOX X+12,12,6,6,1;BOX X-12,-12,6,6,1;  
RETURN  
980;BOX X-12,12,6,6,1;BOX X+12,6,6,1;RETURN  
990;BOX X-12,6,6,1;BOX X+12,6,6,1;RETURN
```

Keep all the spacing tight (except inside the quotation marks, they should be as shown above) even though it was typed a little inconsistently. The program uses almost all of the BASIC UNIT's memory. The command PRINT SZ must indicate at least 14, if not, eliminate lines 1 & 2.

The program operates as follows:
LINES #1 - 70 set up the menu
LINES 100 - 120 selects the number of players for electronic dice

LINES 140 - 210 sets up player bet for craps game
LINES 220 - 360 compares the numbers rolled on the dice, determining both winning and losing combinations
LINES 400 - 460 is the loser routine for craps
LINES 500 - 540 specify winning and losing combinations
LINES 550 - 590 give player total and returns for next bet

LINES 600 - 660 is the winner routine for craps
LINES 700 - 730 enters each player's roll on electronic dice
LINES 740 - 780 selects the winner for electronic dice (highest combination)

LINES 800 - 830 selects number of times dice roll
LINES 840 - 890 roll dice (random selection)
and draws frame for dice
LINES 900 - 950 select dot combinations
LINES 960 - 990 draw dots on dice

ARCADE DICE is played with the hand controls. First menu selection allows up to four players to play in rotation, just enter the number of players, then press go. Number of rolls is selected by knob on hand control, pulling the trigger will begin the rolling. After the combination is displayed, control shifts to the next hand control. After everyone has thier turn, the winner is immediately selected.

The second menu selection allow player to place bet with knob and trigger, then number of rolls is selected as above. Score is automatically indicated.
To return to menu, press Zero (0) on keypad. This can only be done during selection stages of rolls or bet, which reset automatically.

This program can be modified using the separate sections in other combinations, or modifying the size and location of the dice. Electronic dice can replace regular dice in board games, by keeping track of whose turn it is (everyone gets thier own control, but cannot move out of turn). I hope this will give someone certain possibilities.

YOURS TRULY,
Klaus Grissauer
KLAUS GRISWAER
320 Hanna Ave., Blvd. 3, Apt. B
LOVELAND, OH 45140

MACHINE ACTING UP? Most of us have had problems of intermittent failure, garbage on the screen, keypad or controller malfunction, etc. Bally has set up a number of service centers around the country, primarily to take care of their commercial arcade machines, and most problems are solved by a simple swap of units. New units didn't always work and so some subscribers have had 5,6, or 7 units before they got a good one. I'm on #3 myself. Gunther Dorth, 154 Cornell Ave., Des Plaines, IL 60016 has volunteered to act as a clearing house, requesting information from those of you who have had problems, had them solved, still have them, etc.,etc. When writing, send him your serial number.

POKE program that does funny things was sent in by Dick Martin. It keeps changing its own line numbers, and other stuff....

```
10 INPUT A  
20 %A=A  
30 TV = %A  
40 GOTO 10
```

TAPE PROGRAM PURVEYORS might be interested in trying this idea I had the other day - How about a vocal description prior to the program itself, and then some vocal instructions after the program has been loaded. Put some suitable instructions where they will help.

ADS: Sell Bally Computer System complete, includes Panzer/Baron, Clowns, Breakout, Football, Star Battle, Blackjack, Baseball and 4 joysticks. Best offer about \$300. Brand New. Mark Turmell, 4691 S. Elm Dr. Bay City, Mich, 48706

517-684-9189

Listing only for Chuck-a-Luck, a one-player gambling game with graphics.
\$1 and self-addressed envelope to Al Nowak, 10632 S.Kenneth, Oak Lawn IL 60453

CORRECTION to the Handbook (sample page on p.83) noted by Chuck Thomka. On p.109, the labels of columns MC0 and MC1 should be reversed. The same table is properly shown on p.123

EIGHT

ARCADIAN

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San Jose, CA 95127

FIRST CLASS